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Research review

The Affordable Care Act at 10 Years: Evaluating the Evidence and Navigating an Uncertain Future

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ABSTRACT

The year 2020 marks the 10th anniversary of the signing of the Affordable Care Act (ACA). Perhaps the greatest overhaul of the US health care system in the past 50 y, the ACA sought to expand access to care, improve quality, and reduce health care costs. Over the past decade, there have been a number of challenges and changes to the law, which remains in evolution. While the ACA's policies were not intended to specifically target surgical care, surgical patients, surgeons, and the health systems within which they function have all been greatly affected. This article aims to provide a brief overview of the impact of the ACA on surgical patients in reference to its tripartite aim of improving access, improving quality, and reducing costs.

March 23rd, 2020, marked the 10th anniversary signing of the Affordable Care Act (ACA). In these times of economic uncertainty and unprecedented unemployment,[1] the most sweeping health reform law in the last few decades remains as relevant as ever. This federal statute was the largest comprehensive health care legislation since Medicare and Medicaid were established in 1965 and was created with three goals: 1) to increase access, 2) to improve quality, and 3) to reduce costs (Fig. 1).[2] Its main vehicle to increase access was by expanding both private and public health insurance

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coverage. It sought to improve quality by linking hospital and physician payments to the quality of care they provide. It looked to reduce costs by investing in new patient care models, such as bundled payments. The ACA has made headway in all three goals but has also faced challenges in legislation, funding, and support. Although often thought of as a single policy, the ACA consists of multiple policies that work together toward different goals. These goals, although not initially intended to impact surgical care directly, effects surgical patients, surgeons, and the health systems they function within. This article aims to provide a brief overview of the impact of the ACA on surgical patients in reference to the tripartite aim of improving access, improving quality, and reducing costs (Table).

The ACA's impact on access to surgical care

One of the primary aims of the ACA was to reduce the number of Americans who are uninsured. It did this through the extension of private and public health insurance. The ACA expanded private insurance through two main mechanisms: employer-based insurance reform measures and the creation of online health insurance Marketplaces.[3] Approximately, half of all US residents have health insurance through their employer, making employer-based insurance the most common form of insurance.[1] For those who do not have this, the health insurance Marketplaces are available, supported by tax credits on premiums and subsidies on cost sharing.[4] Insurance expansion also allowed children to continue under their parents' insurance up until they are 26 y old and required all insurance policies to cover 100% of preventative costs. By expanding health insurance coverage, 17 million people who were previously uninsured gained health insurance within 1 y of implementation of the ACA—from 2014 to 2015.[5]

Medicaid expansion was a large component of the ACA and its goal was to increase access to health care for lower income adults. It expanded public insurance by expanding eligibility for enrollment in Medicaid to 138% of the federal poverty line from 44%.[3] Medicaid expansion was initially federally mandated, but in 2012 the Supreme Court ruled that the federal government could not force states to expand insurance given Medicaid is a state-based program. Despite this, 25 states were the first to expand Medicaid by January 1, 2014, and more states have expanded since—6 of which (ID, UT, NE, OK, MO, ME) have performed so with voter-led state ballot initiatives.[6,7] As of today, 39 states and DC have expanded Medicaid (OH and MO have passed expansion laws but are not yet implemented) (Fig. 2).[8]

Medicaid expansion helped mitigate the gap in health care outcomes and disparities in health-related financial hardship.[9,10] Nationally, the gap in insurance coverage between black and white patients and between Hispanic/Latino[11] and white patients decreased.[9] Notably, racial/ethnic disparities in insurance status were reduced in both Medicaid expansion and nonexpansion states.[9] In expansion states, white, black, and Hispanic patients all had improved coverage, with black adults in expansion states achieving coverage levels similar to white adults in nonexpansion states.[9]

Nationally, the ACA's improvements in health insurance coverage have translated to improved health care access for surgical populations. After the implementation of the ACA,

Fig. 1 – The 3 pillars of the Affordable Care Act (ACA): access, quality, and cost. The ACA increased access by increasing access to health insurance (employer-based and the Marketplaces for private insurance, Medicaid expansion for public insurance, and all children under the age of 26 years could stay on their parent's insurance). It increased quality by linking payments to quality (Accountable Care Organizations (ACOs), Medicare Shared Savings Program (MSSP), and Hospital Readmissions Reduction Program). It decreased costs through new patient care models (Bundled Payment for Care Improvement Program). Icon credits: Gregor Cresnar, The Icon Z, Arthur Shlain from the Noun Project. (Color version of figure is available online.)

Table – Summary of the ACA, surgery, and the pandemic.

Key questions	Key findings	Sources
How successful was the ACA at expanding insurance coverage and timely access to care among surgical populations?	• Earlier presentation for acute surgical diseases. • Improved cancer screening and earlier stage at diagnosis. • Increased listing for heart and lung transplant. • Increased access to rehab after trauma. • No inpatient mortality benefits identified.	Loehrer *et al.* JAMA Surg 2018 Zogg *et al.* JACS 2018 Eslami *et al.* Ann Surg 2019 Zerhouni *et al.* DCR 2019 Ajkay *et al.* JACS 2018 Sineshaw *et al.* JAMA Oto 2020 Hyanga *et al.* Transpl Int'l 2019 Scott *et al.* J trauma 2019 Zogg *et al.* JAMA surgery 2019
Did the ACA impact prepolicy racial/ethnic disparities in insurance coverage or clinical outcomes among surgical populations?	• Racial/ethnic insurance coverage gap decreased. • Uninsured rate among non-Hispanic black and Hispanic populations decreased in both Medicaid expansion and nonexpansion states. • Black adults achieved similar coverage rates to white adults in expansion states. • Black and Hispanic patients had a greater reduction in ruptured appendicitis rates, a proxy for timely access to care. • Almost 50% of black adults and 1/3 of Hispanic adults live in states that have not yet expanded Medicaid.	Baumgartner *et al.* Commonwealth Fund 2020 Baumgartner *et al.* AM J PH 2016 Zogg *et al.* Ann Surg 2018
How has the ACA improved the quality of the health care delivered?	• The Medicare Shared Savings Program (MSSP) encouraged creation of accountable care organizations (ACOs) and tracking of outcomes. • From 2012 to 2014, ACO hospitals cost the health care system $100 million, but ACO physician groups saved $250 million. • MSSP did not focus on surgical care, and no change in cost or quality of various surgical metrics has been shown. • ACOs are taking on increasing downside risk (monetary penalties for poor performance)	Muhlestein *et al.* HA 2019 McWilliams *et al.* NEJM 2018 Nathan *et al.* Ann Sug 2019 Herrel *et al.* Cancer 2016 Resnick *et al.* Ann Surg 2018
Has the ACA reduced health care costs?	• Higher quality hospitals spend less on surgical care. • For bariatric surgery, lowest readmission rates and complication rates among hospitals that spend less—bundled payments saved the health care system $200M • The Hospital Readmission Reduction Program decreased readmission rates overall, but consequences and impact size are still being evaluated	Tsai *et al.* HA 2016 Tsai *et al.* JAMA Surg 2015 Chandra *et al.* HA 2013 Chhabra *et al.* Ann Surg 2019 Ibrahim *et al.* Ann Surg 2017 Demiralp *et al.* HSR 2018 Ibrahim *et al.* JAMA IM 2017 Lindrooth *et al.* HA 2018 Sommers *et al.* HA 2017 Lie *et al.* JAMA open 2020
What are the threats to the future of the ACA?	• Funding cut since 2016: Patient navigator funding dropped by $55 million, advertising budget cut 90%. • Uninsured rate increased almost 4% from 2016 to 2018 (1.2 M nonelderly adults). • Voters continue to expand Medicaid via state ballot bills. • However, many states are reducing enrollment through work restrictions and other policies. • COVID-19 stopped these restrictions given surge in unemployment and loss of employer-based health insurance. • Now seeing push from states to expand Medicaid eligibility and private insurance companies preparing for increased enrollment.	Kliff *et al.* KFF 2020 Tolbert *et al.* KFF 2020 Keith. HA Blog 2019 Fehr. KFF 2020

Summary of the ACA, surgery, and the pandemic.

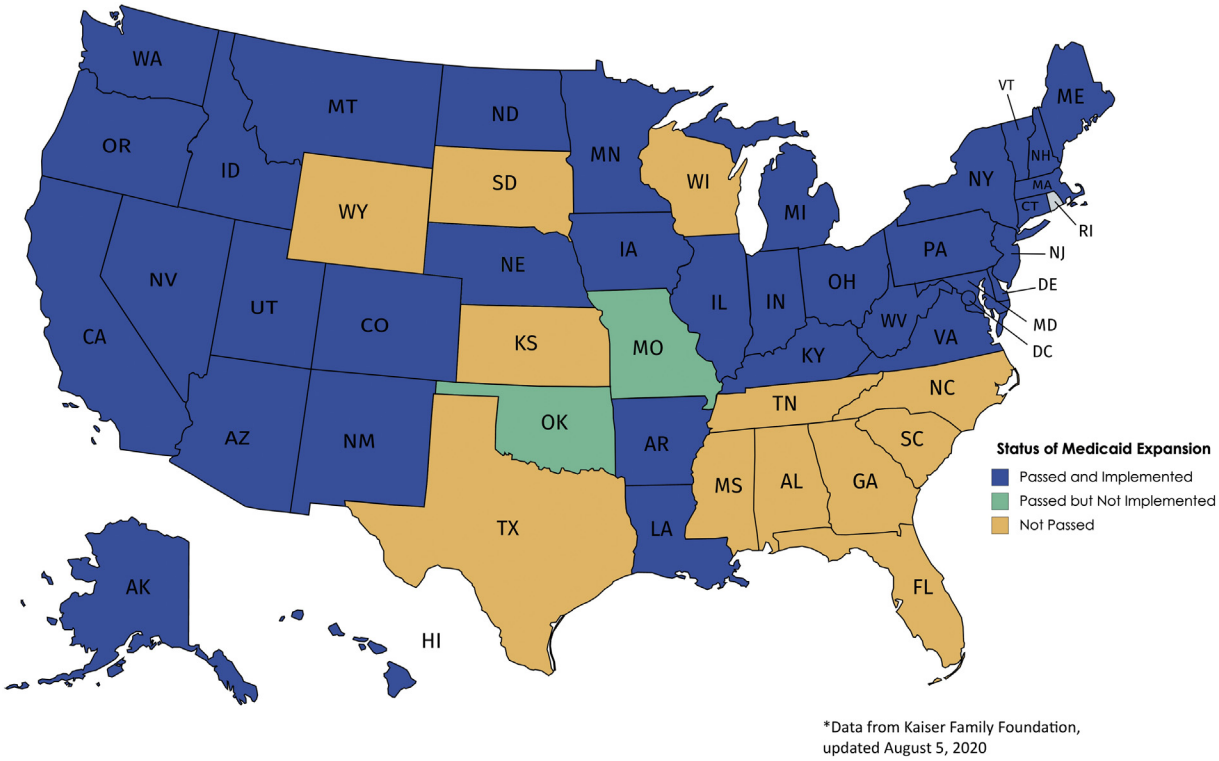

Fig. 2 – Status of state Medicaid expansion decisions. 39 states and D.C. have passed laws to expand Medicaid, 12 have not. OK and MO have passed Medicaid Expansion laws but have not implemented them, resulting in 15 states that have not implemented Medicaid Expansion. Data adapted from the Kaiser Family Foundation, *Status of State Action on the Medicaid Expansion Decision*, updated on August 5th, 2020. Created with MapChart.net. (Color version of figure is available online.)

surgical patients presented to a care center earlier for acute surgical diseases such as appendicitis, cholecystitis, acute limb ischemia, and colon cancer perforation.[12–14] This results in fewer perforated appendices, fewer laparoscopic converted to open cholecystectomies, and fewer limb amputations. In particular for states that expanded Medicaid, the uninsured rate of the trauma patient population decreased by 16 percentage points, from 22.7% to 6.8%.[9] Cancer screening was also improved, leading to earlier stage at initial diagnosis—for example, head and neck cancer patients in Medicaid expansion states showed a 25% reduction in time to treatment initiation.[10] There are also increased listings for heart and lung transplants and increased access to rehab centers after trauma.[11,12]

Disparities in access to surgical care decreased as health insurance expansion improved access to medical care. For example, the rate of perforated appendicitis among black and Hispanic patients improved disproportionately compared with white patients. In addition, early studies suggest that patients in Medicaid expansion states are presenting with earlier stage cancers.[15] However, 46% of Black adults and approximately one-third of Hispanic adults are in the 15 states (primarily in the South) that have thus far not implemented Medicaid expansion.[9] There are insufficient data at this time to determine the effects on racial/ethnic disparities on quality of care or financial risk for surgical care. More data are needed regarding what care and where the care is being obtained for these minority patients.

To date, these improvements in access to timely surgical care have not yet demonstrated inpatient mortality differences. This is also true of nonsurgical conditions as well. However, population-level analyses suggest that the impact on overall mortality has been 15-30 fewer deaths per 100,000 patients.[13,16–20] These findings further emphasize that the health of surgical patients may be more reliant on access to outpatient services than inpatient.

The ACA's impact on surgical quality

The ACA worked to improve health outcomes of all patients by strengthening accountable care organizations (ACOs). ACOs are groups of doctors, hospitals, and other health care providers who voluntarily come together to give coordinated, high-quality care. There are over 1000 ACOs that cover 45 million patients across the US and Medicare ACOs account for $85 billion in annual spending.[21] To encourage groups of physicians and hospitals to form ACOs and track their outcomes, the ACA created the Medicare Shared Savings Program (MSSP), a program of the Center for Medicare and Medicaid Services (CMS). Participation in MSSP is incentive-based and the goal is to gather data for all aspects of health care at a population level to improve outcomes and curb costs—but in turn, take on more monetary penalties for poor performance.[22] This is termed, downside risk. Data from the 2012-2014 MSSP showed that hospital-integrated ACOs saved $121

million but earned $232 million in bonus payments (costing the health care system over $100 million), but physician group ACOs saved $583 million and earned $327 million in bonus payments (net savings of $256 million).[23] The ACOs which are the highest performing are those that participate in MSSP, focus on continuous performance improvement in quality, and have below average baseline spending.[24]

MSSP did not focus on surgical care, but some surgical quality data are emerging. Between 2010 and 2014, there has been no change in cost or quality of surgical care within these ACOs (six procedures: AAA repair, colectomy, coronary artery bypass grafting, total hip, total knee, and lung resection).[25] There was also no change in cancer surgery outcomes or decrease in low-value surgeries such as knee arthroplasties.[26] Although this is partly due to only 22% of surgeons participated in MSSP ACOs, more data need to be collected for surgical care through MSSP.[21] However, it is notably becoming a legacy program with several other Medicare ACO models now in existence.[21,22,27]

A third ACA-related quality program that is relevant to surgical patients is the Hospital Readmissions Reduction Program. This program is a Medicare value–based purchasing program that reduces payments to hospitals with excess readmissions. The goal is to improve health care by linking payment to the quality of hospital care.[4] The latest data from the program shows that it not only decreased readmission rates for the conditions targeted (acute myocardial infarction, chronic obstructive pulmonary disease, pneumonia, coronary artery bypass grafting, and total hip and knee arthroplasties) but also had spillover effects for other conditions.[28–30] However, the unintended consequences of increased mortality in some of the targeted conditions are still being evaluated. Moreover, there is evidence that coding artifact—CMS in 2011 changed total number of comorbidities from 10 to 25—may have impacted risk adjustment and overestimated the impact of the Hospital Readmissions Reduction Program by as much as half.[31,32]

The ACA's impact on surgical cost reduction

The ACA sought to reduce costs through programs that shifted the focus from volume to value through alternative payment programs such as bundled payments. Bundled payments are a method of reimbursing providers or facilities for an entire episode of care—for example, a hospital would receive one reimbursement for all costs associated with a laparoscopic appendectomy instead of separate reimbursements for the antibiotics, anesthesia, OR time, etc. The Bundled Payment for Care Improvement Program was created to curb spending variation between hospitals.[33,34] Prior research has revealed that postacute care accounts for most of this spending variation, as well as the growth of spending over time.[35,36] Furthermore, data show that higher quality hospitals spend less on postacute care and readmissions, which serve as spending and readmission targets.[34] These decreased expenditures also apply to surgical subspecialities.[37,38] Specifically within bariatric surgery, the lowest spenders are also the practices that have the lowest 90-day readmission rate and complication rate.[38] Through the Bundled Payment program, spending by hospitals decreased by $278.5 million, spending by physician group practices decreased by $255 million, and there was a net savings to CMS of $202 million after accounting for incentive payments.[37] To scale bundled payments into wider health system transformation, a potential path forward could focus on surgical conditions, mandatory participation by hospitals and physicians groups, and increased downside risk.

One concern with the ACA's focus on reducing costs has been that reduced payments to hospitals and physicians could reduce the financial solvency of hospitals and therefore lead to hospital closures. However, these cost reduction programs through Medicaid expansion have led to a 30% increase in margins for uncompensated care and a six times lower risk of hospital closure for hospitals in expansion states.[39]

Challenges to the ACA

Since 2016, there has been a large deinvestment in the ACA—the ACA's advertising budget was cut by 90% in 2017[40] and funding for patient navigators (those that helped individuals register for health insurance) dropped to $10 million from $65 million.[41,42] These funding cuts, and the rhetoric of repealing the ACA, have resulted in increasing uninsured rates.[43] After the US uninsured rate for nonelderly adults reached its all-time nadir of 10% in 2016, it increased to 13.7% by 2018 resulting in 1.7 million more uninsured adults.[44,45] This increase in the uninsured rate has disproportionately affected young adults, Hispanics, low-income people, and those earning $125-150k per year.[45] In addition, in December 2017, the Supreme Court repealed the so-called "individual mandate" that originally penalized taxpayers if they did not obtain health insurance the year prior. 2019 was the first year the repeal was implemented and despite the worries that the health insurance marketplaces would enter a "death spiral,"[46] results from the first 9 mo of 2019 suggest that the individual market remains profitable and stable.[47]

It is impossible to evaluate the future of the ACA without taking the coronavirus disease 2019 (COVID-19) pandemic into consideration. As the current pandemic progresses, the need for health insurance coverage has increased—not only for those uninsured before the pandemic, but also for the newly unemployed who have lost their employer-based insurance coverage. It is estimated that 12 to 35 million people could lose their workplace coverage due to layoffs during the coronavirus shutdown—in fact, 5.4 million people lost their employer-based health insurance between February and May 2020.[48,49] In addition, there are threats to state-level Medicaid expansion. Before the COVID-19 outbreak, various state governments pursued additional eligibility and verification requirements to obtain Medicaid. These changes affected not only current Medicaid beneficiaries but also the estimated 6.7 million uninsured individuals who were eligible for Medicaid.[50] Earlier this year, these work restrictions were paused given the state of emergency as well as Court of Appeals' rulings that work requirements are unlawful.[51–53] However, in mid-October, the state of Georgia was granted permission to initiate work requirements for their Medicaid enrollees by the CMS.[54] Unfortunately, work requirement policies such as these may ultimately place a barrier for low-

income Americans to qualify for affordable health insurance—especially as unemployment rates increase.[55]

In response to these recent threats to the ACA's progress in increasing health insurance coverage, there appears to be resurgence of action from individual states and Congress to instead expand eligibility, expedite enrollment, promote continuity of coverage, and facilitate access to care. Furthermore, private insurance companies such as Anthem, Centene, Cigna, Molina Healthcare, UnitedHealth Group, and the Aetna unit of CVS Health are preparing for a large influx of US citizens through the health insurance Marketplaces as employers are cutting health benefits.[56] The COVID-19 pandemic is considered the ACA's largest test, and it has largely galvanized support for the ACA.

Where to go from here?

Despite the ongoing challenges to many of its core policies, the ACA currently remains in place and its impact on surgical patients is clear. The ACA led to a significant reduction in the uninsured rate across a variety of surgical populations. The ACA has led to improved quality and fewer readmissions. The ACA has also been associated with improved hospital margins and a significant reduction in the risk that a patient might experience catastrophic financial consequences as a result of emergency surgery. And, while not all populations benefitted equally, the ACA made some strides in reducing long-standing inequalities in health care. Despite these gains, many of the ACA's policies have faced and continue to face challenges in courts and legislative bodies. Furthermore, the rise in unemployment that has accompanied the ongoing COVID-19 pandemic places patients at even more at risk of losing health insurance coverage. The evidence highlighted in this review helps improve our understanding of what aspects of the ACA have worked and what aspects have fallen short. But ongoing policy evaluation is critically important to ensure that we also understand the ramifications of policy changes that threaten to undo some of the progress made in the last decade. Just as the ACA's benefits did not impact all members of society equally, the policy changes that curtail some of the ACA's benefits will disproportionally impact some. There has never been a more important time to ensure that we are all working to optimize access to timely, equitable, high quality, affordable surgical care for everyone.

Disclosure

The authors reported no proprietary or commercial interest in any product mentioned or concept discussed in this article.

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